Remarks

The Office Action Summary Sheet indicates that Claims 1-7, 10-16 and 54-70 are pending in this application and that Claims 1-7, 10-16 and 54-70 are rejected.

The remainder of these Remarks is set forth under appropriate subheadings for the convenience of the Examiner.

Rejection of Claims 1, 3, 4-7, 10, 11, 63-65 and 68-70 Under 35 U.S.C. § 103(a)

Claims 1, 3, 4-7, 10, 11, 63-65 and 68-70 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rinehart (US 6708734) in view of Kunert (US 5092101), Niijima et al. (JP 08268534) and Rocchio et al. (US 2004/0003866).

This rejection is respectfully traversed for the following reasons.

To rely on a reference under 35 U.S.C. 103, the reference must be analogous prior art. MPEP 2141.01(a). This is not the case with Rinehart (US 6708734). Rather, this reference falls outside the field of the present invention and addresses a problem different from the problem addressed by Applicants. *In re Icon Health and Fitness, Inc.*, 496 F.3d 1374 (Fed. Cir. 2007). See also *In re Deminski*, 796 F2d 436, 442 (Fed. Cir. 1986) which states:

> Two separate tests define the scope of analogous prior art: (1) whether the art is in the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.

a. Field of Endeavor

As presently claimed, Applicants' invention pertains to filling a *panel* or a *glazed panel* with particulate matter. The panel (or glazed panel) has a length, width and an internal volume and is characterized by other features recited, for example, in independent Claims 1 and 68-70. Applicant's claimed method includes, for instance, (a) providing a panel having a length, width, and an internal volume, the panel including a first sheet, a second sheet, and two or more supporting members disposed between the sheets, the supporting members defining one or more channels disposed between the first and second sheets and the channels having an internal volume; (b) providing a supply of particulate matter; (c) subjecting the panel to a vibratory motion; (d) filling at least a portion of the internal volume of the panel with the particulate matter while the panel is being subjected to the vibratory motion; (e) repeating steps (c) and (d) until the internal volume of the panel has been filled with the desired amount of particulate matter, wherein at least a portion of a static electricity produced prior to or during filling the panel is discharged.

In contrast, Rinehart neither mentions nor contemplates a method for filling a panel (or glazed panel) such as the panel specified in Claims 1, 3, 4-7, 10, 11, 63-65 and 68-70. Rather, the reference relates to the manufacture of cigarette filters and, as noted at Col. 1, lines 8-10, addresses loading relatively fine particulate matter into a series of cavities that are moved at relatively high speed. These cavities are created between solid cellulose acetate segments or plugs and are wrapped with a porous plug paper. In contrast to the present invention, Rinehart teaches a method for enhancing particulate matter retention in the cavities of a filter plug perform and for removing excess particulate matter from the filter plug perform which includes the steps of: transporting a filter plug preform in a downstream direction; depositing particulate matter into the cavities of the filter plug preform from a particulate matter supply; and engaging the filter plug preform with an ultrasonic vibrational device to enhance particulate matter retention and to remove any excess particulate matter therefrom.

Accordingly, it is respectfully submitted that Rinehart falls outside the field of the claimed invention.

b. Problems Addressed

Problems addressed and solved by Applicants are discussed, for instance, in paragraphs 0002, 0003 and 0004 of the specification. Some relate to filling the internal volume of the panel or glazed panel with a particulate material at a density higher than the pour density, thereby reducing or minimizing settling and decreasing the thermal conductivity through the panel. Other problems relate to the tendency of particulate materials to form relatively large agglomerates due to humid conditions or to the generation of electrostatic charges. As previously noted, additional challenges present themselves in cases in which the dimensions of these agglomerates are larger than the opening through which the internal volume of the panel is to be filled.

As seen in the title of the reference and throughout its text, a major problem addressed by Rinehart is removal of excess granules that come to rest at points other than the moving cavities. Caused by the continuous nature of the process, in which delivery is not stopped between cavities, this excess material interferes with glue application at a later manufacturing stage. To address this problem and to enhance particulate matter retention in the moving cavities of the filter plug perform, Rinehart teaches the use of an ultrasonic vibrator, preferably the vibrational horn of an ultrasonic welder.

Thus Rinehart neither recognizes nor appreciates the problems faced and solved by Applicants. There is nothing in this reference that relates to insulating properties or to filling a panel to a density that is greater than the pour density of a particulate material. Nor does Rinehart show any concern with agglomeration of particles.

Accordingly, there is nothing in Rinehart that "logically would have commended itself to an inventor's attention in considering his problems". *In re Clay*, 966 F2d 656, 659 (Fed. Cir. 1992).

It is respectfully submitted, therefore, that Rinehart is not analogous art and cannot be relied upon as a reference under 35 U.S.C. §103. In the absence of Rinehart, the remaining references cited in the Office Action, whether alone or in combination, neither teach nor suggest the instant claims.

Furthermore, even if Reinhart were to be considered, the combination of references proposed in the Office Action fails to disclose all the features specified in the present claims.

The rapidly moving cavities in Rinehart, for example, serve to receive particulate matter that is continuously delivered. Since the cavities quickly move in and out of position, with particles being deposited on surfaces other than the cavity, the reference does not address *filling* an internal volume. In contrast to the instant claims, the fast moving cavities taught in the reference do not allow for a repetition of the steps of (i) subjecting a cavity to a vibratory motion, and (ii) filling at least a portion of its internal volume with particles while the cavity would be subjected to the vibratory motion.

Kunert (US 5092101) discloses window or wall elements having, as shown, for example, in FIG. 1, two panes and an insulating layer therebetween. As discussed, for instance, at Col. 3, lines 39-46, the insulating layer can be made of silica aerogel pellets. This reference, however, does not disclose any methods for fabricating the wall or window elements and provides no teaching, suggestion or hint on how the silica aerogel pellets are introduced between the panes.

Applicants have previously addressed the remaining two references, Niijima et al. (JP 08268534) and Rocchio et al. (US 2004/0003866) and repeat previously made statements here.

When combined with Rinehart, Kunert, Niijima et al. and/or Rocchio et al. fail to remedy the deficiencies discussed above.

Therefore, even if Rinehart were to be considered, Claims 1, 3, 4-7, 10, 11, 63-65 and 68-70 meet the requirements of 35 U.S.C. § 103(a) in view of the references cited in the Office Action.

Rejection of Claim 2 Under 35 U.S.C. § 103(a)

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified Rinehart in view of Krush et al. (US 6250792).

In light of the comments presented above and comments previously made, it is respectfully submitted that Claim 2 meets the requirements of 35 U.S.C. §103(a) over Rinehart, modified by Kunert, Niijima et al., and Rocchio et al., in view of Krush et al.

Rejection of Claims 12 and 13 Under 35 U.S.C. § 103(a)

Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified Rinehart in view of Sato et al. (2004/0134560).

Applicants repeat statements made above as well as in previously filed Amendments, and respectfully submit that Claims 12 and 13 meet the requirements of 35 U.S.C. § 103(a) over Rinehart, modified by Kunert, Niijima et al., and Rocchio et al., in view of Sato et al.

Rejection of Claims 14-16, 54-62 and 66-67 Under 35 U.S.C. § 103(a)

Claims 14-16, 54-62 and 66-67 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the modified Rinehart.

As discussed above, Rinehart is not analogous art and, even if considered, it fails to teach or suggest the method set forth in Claims 14-16, 54-62 and 66-67. As also discussed above, combining this reference with Kunert, Niijima et al., and/or Rocchio et al. does not cure its deficiencies and the combination of references proposed by the Examiner fails to disclose all the elements of Claims 14-16, 54-62 and 66-67.

Therefore, regardless of whether Rinehart is considered or not, Claims 14-16, 54, 55 and 59-62 meet the requirements of 35 U.S.C. § 103(a) in view of Kunert, Niijima et al. and Rocchio et al.

It is believed that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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